STAAR Alternate 2 Spring 2015 Algebra I Essence Statements

STAAR Reporting Category 1	STAAR Reporting Category 2	STAAR Reporting Category 3	STAAR Reporting Category 4	STAAR Reporting Category 5
Functional Relationships: The student will describe functional relationships in a variety of ways.	**Properties and Attributes of Functions:** The student will demonstrate an understanding of the properties and attributes of functions.	**Linear Functions:** The student will demonstrate an understanding of linear functions.	**Linear Equations and Inequalities:** The student will formulate and use linear equations and inequalities.	**Quadratic and Other Nonlinear Functions:** The student will demonstrate an understanding of quadratic and other nonlinear functions.
Knowledge and Skills Statement 　**Algebra (1) Foundations for functions.** The student understands that a function represents a dependence of one quantity on another and can be described in a variety of ways. (Readiness and Supporting Standard) **Essence Statement** 　Shows a basic understanding of functions.	**Knowledge and Skills Statement** 　**Algebra (2) Foundations for functions.** The student uses the properties and attributes of functions. (Readiness and Supporting Standard) **Essence Statement** 　Uses properties and attributes of functions. 〜〜〜〜〜〜〜 **Knowledge and Skills Statement** 　**Algebra (4) Foundations for functions.** The student understands the importance of the skills required to manipulate symbols in order to solve problems and uses the necessary algebraic skills required to simplify algebraic expressions and solve equations and inequalities in problem situations. (Readiness and Supporting Standard) **Essence Statement** 　Uses mathematical skills to simplify expressions and solve problems.	**Knowledge and Skills Statement** 　**Algebra (5) Linear functions.** The student understands that linear functions can be represented in different ways and translates among their various representations. (Readiness and Supporting Standard) **Essence Statement** 　Understands different representations of linear functions. 〜〜〜〜〜〜〜 **Knowledge and Skills Statement** 　**Algebra (6) Linear functions.** The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations. (Readiness and Supporting Standard) **Essence Statement** 　Recognizes slope and intercepts and how they are affected by change.	**Knowledge and Skills Statement** 　**Algebra (7) Linear functions.** The student formulates equations and inequalities based on linear functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. (Readiness and Supporting Standard) **Essence Statement** 　Formulates and solves equations and inequalities of linear functions. 〜〜〜〜〜〜〜 **Knowledge and Skills Statement** 　**Algebra (8) Linear functions.** The student formulates systems of linear equations from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. (Readiness and Supporting Standard) **Essence Statement** 　Formulates and solves systems of linear equations.	**Knowledge and Skills Statement** 　**Algebra (9) Quadratic and other nonlinear functions**. The student understands that the graphs of quadratic functions are affected by the parameters of the function and can interpret and describe the effects of changes in the parameters of quadratic functions. (Readiness and Supporting Standard) **Essence Statement** 　Uses the graphs of quadratic functions to predict changes. 〜〜〜〜〜〜〜 **Knowledge and Skills Statement** 　**Algebra (10) Quadratic and other nonlinear functions.** The student understands there is more than one way to solve a quadratic equation and solves them using appropriate methods. (Readiness and Supporting Standard) **Essence Statement** 　Solves quadratic equations in a variety of ways.